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Illustrated list of the Zygaena Fabr. species in Turkey based upon the Info-system of the Cesa (Lepidoptera, Zygaenidae, Zygaeninae)

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Abstract: Illustrated list of the Zygaena Fabr. species in Turkey based upon the Infosystem of the Cesa (Lepidoptera, Zygaenidae, Zygaeninae). Cesa News 54: 1-35, 53 figs. In this paper, totally 34 species of the genus Zygaena recorded in Turkey are listed, with their synonyms, distributional information and illustrations in nature. A selected bibliography is also given.

Key words: List, fauna, Turkey, Zygaena, Zygaenidae, Lepidoptera

Within the projects of the Cesa, concerning on the *Lepidoptera* fauna of Turkey¹ the Zygaena species inhabiting in Turkey, based upon the info-system² of the Cesa is listed here for the first time with the distributional information and illustrations the species in nature. A catalogue of the specimens preserved in the collection of the Cesa will be published separately.

The members of the genus Zygaena Fabricius, 1775 in Turkey are univoltine and mostly diurnal.3 Totally 34 species are known, but this number may change in future, due to some taxonomical evaluations and discoveries of new faunistical records near the borders of Caucasian countries and West Iran. They are represented in three subgenera in Turkey, namely, Zygaena Fabr. (nominate subgenus) (11 species), Mesembrynus Hübner, [1819] (14 species), and Agrumenia Hübner, [1819] (9 species).

In the following list, the subspecies are completely omitted, due to some taxonomical instabilities among them. Although numerous surveys and expeditions were made in order to research the Turkish zygaenids in the past, the faunistical and taxonomical publications are still

¹ http://www.cesa-tr.org/Cesaprojects.htm

² http://www.cesa-tr.org/Infos.htm

³ See list of bibliography nr.121.

insufficient, in solving the problems concerning the identity and the distributional boundries especially in most of the subspecies. The synonymous names, chronologically arranged, are added to each taxa. Distributional information are given as codes of the provinces of Turkey. A selected bibliography, related on the Turkish *Zygaenidae* from the faunistical, ecological and taxonomical standpoints, is also given below.⁴ All the illustrations are copyrighted, based upon the field studies of the authors, and preserved in the Archive of the Cesa.

List of the *Zygaena* Fabricius in Turkey

The following temporary list comprises the 34 valid of the genus *Zygaena* Fabr. in Turkey. To each species, chronologically arranged synonyms are added. Nomenclaturally unavailable names and incorrect subsequent spellings are marked with #. Provincial distribution in Turkey are mentioned in blue colour and as codes (see explanation below). Illustrated species are marked with *.

01 02 03 04 05 06 07 08 09 10	Adana Adıyaman Afyonkarahisar Ağrı Amasya Ankara Antalya Artvin Aydın Balıkesir Bilecik Bingöl	21 22 23 24 25 26 27 28 29 30 31 32	Diyarbakır Edirne Elazığ Erzincan Erzurum Eskişehir Gaziantep Giresun Gümüşhane Hakkari Hatay Isparta	41 42 43 44 45 46 47 48 49 50 51 52	Kocaeli (Izmit) Konya Kütahya Malatya Manisa Kahramanmaraş Mardin Muğla Muş Nevşehir Niğde Ordu	62 63 64 65 66 67	Trabzon Tunceli Şanlıurfa Uşak Van Yozgat Zonguldak Aksaray Bayburt Karaman Kırıkkale Batman
07	Antalya	2 7	Gaziantep	47	Mardin	67	Zonguldak
08	Artvin	28	Giresun	48	Muğla	68	Aksaray
09	Aydın	29	Gümüşhane	49	Muş	69	Bayburt
10	Balıkesir	30	Hakkari	50	Nevşehir	70	Karaman
11	Bilecik	31	Hatay	51	Niğde	71	Kırıkkale
12	Bingöl	32	Isparta	52	Ordu	72	Batman
13	Bitlis	33	Içel (Mersin)	53	Rize	73	Şırnak
14	Bolu	34	Istanbul	54	Sakarya	74	Bartın
15	Burdur	35	Izmir	55	Samsun	75	Ardahan
16	Bursa	36	Kars	56	Siirt	76	Iğdır
17	Çanakkale	3 7	Kastamonu	5 7	Sinop	77	Yalova
18	Çankırı	38	Kayseri	58	Sivas	78	Karabük
19	Çorum	39	Kırklareli	59	Tekirdağ	79	Kilis
20	Denizli	40	Kırşehir	60	Tokat	80	Osmaniye
						81	Düzce

- 1. *Zygaena (Agrumenia) armena Eversmann,1851 Synonym(s): armena Eversmann,1851; kadenii Lederer,1864 Distributions in Turkey (as provincial codes): **08** 75
- 2. *Zygaena (Agrumenia) carniolica (Scopoli,1763) Synonym(s): carniolica Scopoli,1763; nigra Dziurzynski,1909; transiensnigra Dziurzynski,1909 Distributions in Turkey (as provincial codes): 01 04 05 06 07 08 13 14 16 22 23 24 25 29 30 31 33 34 35 36 37 38 39 41 42 43 46 58 60 65 66 71 75 76 77 78
- 3. Zygaena (Agrumenia) formosa Herrich-Schäffer,[1852] Synonym(s): formosa Herrich-Schäffer,[1852] Distributions in Turkey (as provincial codes): 01 04 05 06 29 42 44 58 76
- **4. Zygaena (Agrumenia) fraxini Ménétriés,1832** Synonym(s): fraxini Ménétriés,1832; scovitzii Ménétriés,1832; cingulata Sheljuzhko,1958 Distributions in Turkey (as provincial codes): **30**
- 5. *Zygaena (Agrumenia) loti ([Denis & Schiffermüller],1775) Synonym(s): loti [Denis & Schiffermüller],1775; fulvia Fabricius,1777 Distributions in Turkey (as provincial codes): 04 05 06 08 13 14 18 22 23 25 26 28 29 30 31 32 36 37 38 42 44 46 49 53 58 60 62 65 69 71 75 76 78
- 6. *Zygaena (Agrumenia) olivieri Boisduval,1828 Synonym(s): olivieri Boisduval,1828; cremonae Seitz,1907 Distributions in Turkey (as provincial codes): 01 04 05 06 07 08 11 13 19 23 25 29 30 33 36 38 42 44 46 49 50 58 60 62 65 66 70 73 76
- 7. Zygaena (Agrumenia) peschmerga Eckweiler & Görgner,1981 Synonym(s): peschmerga Eckweiler & Görgner,1981 Distributions in Turkey (as provincial codes): 30
- **8. Zygaena (Agrumenia) rosinae Korb,1903** Synonym(s): *rosinae Korb,1903* Distributions in Turkey (as provincial codes): **36 76**
- 9. *Zygaena (Agrumenia) sedi Fabricius,1787 Synonym(s): sedi Fabricius,1787 Distributions in Turkey (as provincial codes): 06 12 36 45 46 49 58 60 65

⁴ For more comprehensive bibliography concerning the Lepidoptera studies by the Cesa, see: Centr. Ent. Stud., Memoirs 2 (1994), and Koçak,A.Ö. & M.Kemal (eds.), 2007, Results of the International Projects of the Cesa on the World Lepidoptera - I. *Cent. ent. Stud., Memoirs* 3-4: v + 1-1989 pp. 49 Col. Plates. [chapter 4, "Bibliography of the Lepidoptera (BL)"] http://www.archive.org/details/CentreForEntomologicalStudiesAnkaraMemoirs3-41989Pages49Plates10

- **10.** Zygaena (Mesembrynus) adsharica H.Reiss,1935 Synonym(s): adsharica H.Reiss,1935; #interrupta H.Reiss,1935; #omniconfluens H.Reiss,1935
- **11.** Zygaena (Mesembrynus) brizae (Esper,1800) Synonym(s): brizae Esper,1800 Distributions in Turkey (as provincial codes): **01 05 08 25 29 33 36 42 49 53 58 60 61 65 66 76 80**
- **12.** *Zygaena (Mesembrynus) cambysea Lederer,1870 Synonym(s): cambysea Lederer,1870 Distributions in Turkey (as provincial codes): **04 05 13 25 30 58 62 65 73**
- **13.** *Zygaena (Mesembrynus) cuvieri Boisduval,1828 Synonym(s): cuvieri Boisduval,1828 Distributions in Turkey (as provincial codes): **04 13 29 30 36 44 49 65 66 69 73 76**
- **14.** Zygaena (Mesembrynus) cynarae (Esper,[1789]) Synonym(s): cynarae Esper,[1789]; genistae Herrich-Schäffer,1846 Distributions in Turkey (as provincial codes): **75**
- **15.** *Zygaena (Mesembrynus) haematina Kollar,[1849] Synonym(s): haematina Kollar,[1849] Distributions in Turkey (as provincial codes): **30** 65
- **16.** *Zygaena (Mesembrynus) laeta (Hübner,1790) Synonym(s): laeta Hübner,1790 Distributions in Turkey (as provincial codes): **05 06 11 13 16 25 38 42 46 58 63 66 70**
- **17. Zygaena (Mesembrynus) lydia Staudinger,1887** Synonym(s): lydia Staudinger,1887 Distributions in Turkey (as provincial codes): **01 13 30 36 44 65**
- **18.** Zygaena (Mesembrynus) manlia Lederer,1870 Synonym(s): manlia Lederer,1870 Distributions in Turkey (as provincial codes): 30 65
- 19. *Zygaena (Mesembrynus) minos ([Denis & Schiffermüller],1775) Synonym(s): minos [Denis & Schiffermüller],1775. Distributions in Turkey (as provincial codes): 01 06 07 10 13 23 24 31 32 33 36 42 44 48 53 58 60 61 65 66 75
- 20.*Zygaena (Mesembrynus) punctum Ochsenheimer,1808 Synonym(s): punctum Ochsenheimer,1808 Distributions in Turkey (as provincial codes): 04 05 06 12 13 17 23 33 35 42 44 45 49 51 57 58 60 66 70 76
- **21.** *Zygaena (Mesembrynus) purpuralis (Brünnich,1763) Synonym(s): purpuralis Brünnich,1763; pythia Fabricius,1777; scabiosae Scheven,1777; pilosellae Esper,1780; pluto Ochsenheimer,1808; pasiphae Meigen,[1829]; tatvanica Reiss & Reiss,1973. Distributions in Turkey (as provincial codes): **04 05 06 08 13 14 16 23 25 29 30 31 34 36 38 42 44 46 58 61 62 65 69 71** 72 75 76
- **22.** *Zygaena (Mesembrynus) rubricollis Hampson,1900 Synonym(s): rubricollis Hampson,1900 Distributions in Turkey (as provincial codes): 65
- **23.** *Zygaena (Mesembrynus) tamara Christoph,1889 Synonym(s): tamara Christoph,1889 Distributions in Turkey (as provincial codes): 13 30 62 65
- **24.** *Zygaena (s.str.) amanica* **H.Reiss,1935** Synonym(s): *amanica H.Reiss,1935* Distributions in Turkey (as provincial codes): **31 46**
- **25.** *Zygaena (s.str.) araratica* **Staudinger**,1871 Synonym(s): *araratica Staudinger*,1871 Distributions in Turkey (as provincial codes): 76
- 26. *Zygaena (s.str.) dorycnii Ochsenheimer,1808 Synonym(s): dorycnii Ochsenheimer,1808 Distributions in Turkey (as provincial codes): 04 06 08 11 13 14 24 25 28 29 33 36 38 42 43 49 53 57 61 62 69 75 76
- 27. *Zygaena (s.str.) filipendulae (Linnaeus,1758) Synonym(s): filipendulae Linnaeus,1758; aries Retzius,1783 Distributions in Turkey (as provincial codes): 01 05 06 08 10 11 13 14 16 18 22 24 25 28 29 30 31 34 36 37 42 43 44 49 50 53 58 60 61 62 65 66 69 70 75 76 78
- **28.** Zygaena (s.str.) graslini Lederer,1855 Synonym(s): graslini Lederer,1855 Distributions in Turkey (as provincial codes): **27** 31 33 46 63 70
- **29.** *Zygaena (s.str.) lonicerae (Scheven,1777) Synonym(s): lonicerae Scheven,1777; graminis Villers,1789; rechei Dujardin,1965; microdoxa Dujardin,1965 Distributions in Turkey (as provincial codes): **05 06 08 10 13 14 16 24 25 29 36 42 55 58 62 75 76**
- **30.** *Zygaena (s.str.) osterodensis H.Reiss,1921 Synonym(s): osterodensis H.Reiss,1921 Distributions in Turkey (as provincial codes): 13 36 49 53
- **31.** *Zygaena (s.str.) problematica* Naumann,1966 Synonym(s): *problematica Naumann,1966* Distributions in Turkey (as provincial codes): **33**
- **32.** Zygaena (s.str.) ramburii Herrich-Schäffer,1861 Synonym(s): ramburii Herrich-Schäffer,1861; ramburi Lederer,1861 Distributions in Turkey (as provincial codes): 31 33
- **33.** *Zygaena (s.str.) senescens Staudinger,1887 Synonym(s): senescens Staudinger,1887 Distributions in Turkey (as provincial codes): **01** 46
- **34.** Zygaena (s.str.) viciae ([Denis & Schiffermüller],1775) Synonym(s): viciae [Denis & Schiffermüller],1775; meliloti Esper,1789; buglossi Boisduval,1829 Distributions in Turkey (as provincial codes): **05 06 08 13 18 24 25 28 31 33 38 42 46 49 58 60 71 76**

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Illustrations of some Zygaena species in Turkey

The following representative 53 images of 19 species are based upon the Archive of the Cesa and their copyrights belong to the authors.



Fig. 1 - Zygaena armena Turkey Ardahan Posof Çambeli 1730m 2 8 2009 Photo M Kemal (Cesa)



Fig. 2 - Zygaena armena Turkey Ardahan Posof Çambeli 1730m 2 8 2009 Photo M Kemal (Cesa)



Fig. 3- Zygaena armena Turkey Ardahan Posof Türkgözü 1300m 18 2009 Photo M Kemal (Cesa)



Fig. 4- Zygaena armena Turkey Ardahan Prov., Posof Türkgözü 1300m 1 8 2009 Photo M Kemal (Cesa)



Fig. 5- Zygaena armena Turkey Ardahan Prov. Posof S 1460m 12 8 2007 photo M Kemal (Cesa)



Fig. 6 - Zygaena carniolica Turkey Erzurum Prov. Kırık S 2250m 11 8 2009 Photo M Kemal (Cesa)



Fig. 7 - Zygaena carniolica Turkey Ardahan Prov. Çamlıçatak 1900m 3 8 2009 photo M Kemal (Cesa)



Fig. 8- *Zygaena loti* in copula on *Onobrychis* sp. (*Fabaceae*). Turkey Adana Prov. Tufanbeyli Kayapınar E 1470m, 25 6 2009 photo M Kemal (Cesa)



Fig. 9- Zygaena loti in copula on Onobrychis sp. (Fabaceae) male (left) & female (right). Turkey Adana Prov. Tufanbeyli Kayapınar E 1470m, 25 6 2009 photo M Kemal (Cesa)



Fig. 10 - *Zygaena loti* in copula on grass (*Poaceae*), male (left) & female (right). Turkey Van Prov. Kurubaş pass 2150m, 4 7 2009 photo M Kemal (Cesa)





Fig. 11 - Zygaena loti laid eggs on flower of Astragalus onobrychis (Fabaceae). Turkey Van Prov., Çatak Dalbastı 3km S 1350m 14 6 2003 photo A Koçak (Cesa)



Fig. 12 - Zygaena olivieri Turkey Kars Prov., Kağızman Paslı Geçidi S 1770m, 11 7 2007 photo M Kemal (Cesa)



Fig. 13 - *Zygaena olivieri* on *Astragalus (Fabaceae*). Turkey Van Prov. Çatak Karadana 2300m, 16 7 2008 photo M Kemal (Cesa)



Fig. 14 - *Zygaena olivieri* captured by spider web. Turkey Van Prov. Çatak Karadana 2300m, 16 7 2008 photo M Kemal (Cesa)



Fig. 15 - Zygaena olivieri Turkey Bitlis Prov. Tatvan Reşadiye 1680m 10 7 2005 photo A Koçak (Cesa)



Fig.16 - *Zygaena olivieri* on *Anchusa* sp. (*Boraginaceae*). Turkey Bitlis Prov. Tatvan Reşadiye 1680m 10 7 2005 photo A Koçak (Cesa)





Fig. 17 - Zygaena olivieri Turkey Van Prov, Çatak Akçabük 1600m, 28 6 2007 photo M. Kemal (Cesa)



Fig. 18 - *Zygaena olivieri* a male at rest on *Anchusa* sp. (Boraginaceae). Turkey Artvin Prov. Yusufeli Sarıgöl 1400m 7 7 2003 photo A Kocak (Cesa)

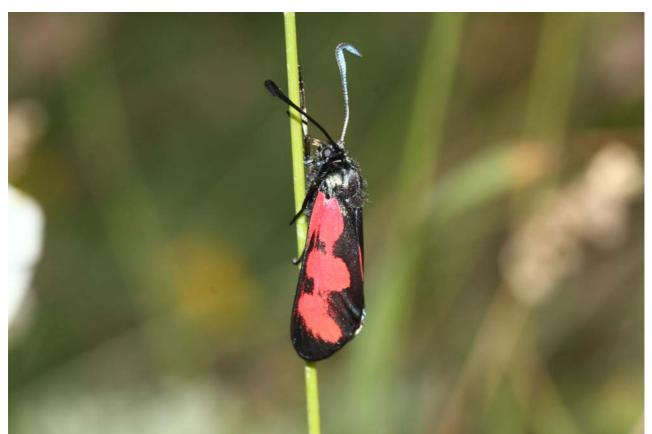


Fig. 19- Zygaena sedi Turkey Erzurum Prov. Pazaryolu Gölyurt 2340m 8 8 2009 photo M Kemal (Cesa)

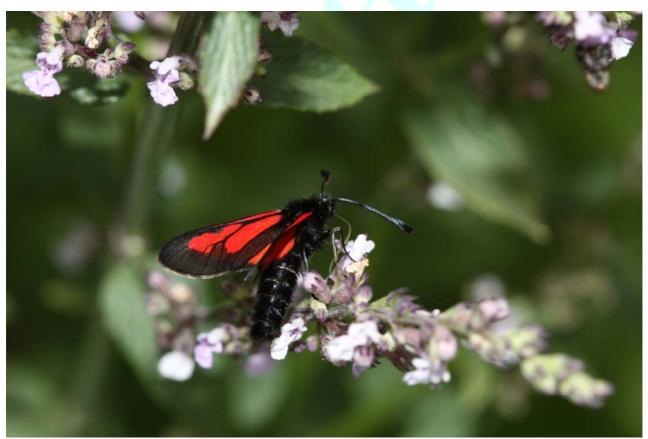


Fig. 20 - *Zygaena* aff. *osterodensis* Turkey Ardahan Prov., Posof Çambeli 1700m 19 7 2009 photo M Kemal (Cesa)



Fig. 21 - Zygaena cambysea in copula. Turkey Van Prov., Çatak Yapılı 2100m 1 7 2009 photo M Kemal (Cesa)



Fig. 22- Zygaena cambysea Turkey Van Prov., Çatak Yapılı 2100m 1 7 2009 photo M Kemal (Cesa)



Fig. 23 - *Zygaena cuvieri* Turkey Adana Prov., Tufanbeyli Kayapınar E 1470m, 25 6 2009 photo M Kemal (Cesa)



Fig.24 - Zygaena cuvieri resting on Eryngium sp. (Apiaceae). Turkey Bitlis Prov. Tatvan Reşadiye 1680m 10 7 2005 photo A Koçak (Cesa)

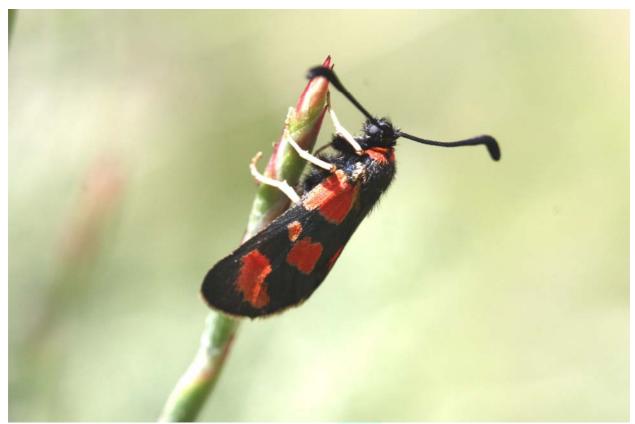


Fig. 25 - Zygaena haematina [with red abdominal ring]. Turkey Van Prov. Çatak Ardıç vadisi 2120m 7 7 2009 photo M Kemal (Cesa)



Fig. 26 - Zygaena laeta at rest Turkey Konya Prov., Barsakdere 1300m 15 6 1986 photo A Koçak (Cesa)





Fig. 27 - *Zygaena laeta* in copula on *Scabiosa argentea* (*Dipsacaceae*). Turkey Karaman Prov. Hacıbaba 1400m 23 6 2009 photo M Kemal (Cesa)



Fig. 28 - *Zygaena laeta* at rest on grass (*Poaceae*). Turkey Karaman Prov. Hacıbaba 1000m 23 6 2009 photo M Kemal (Cesa)

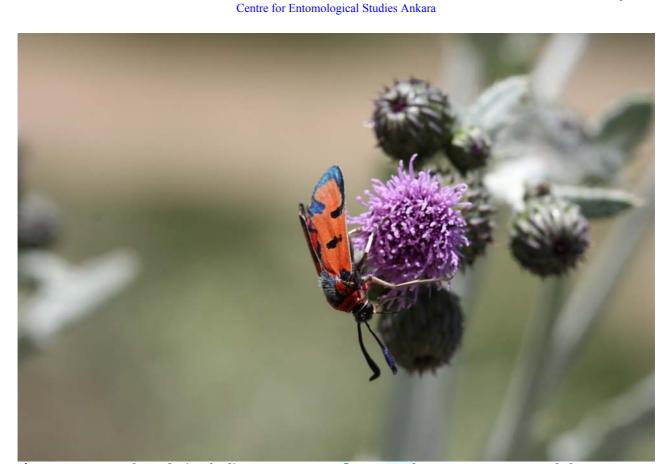


Fig. 29 - *Zygaena laeta* during feeding on *Asteraceae* flowers. Turkey Karaman Prov. Hacıbaba 1400m 23 6 2009 photo M Kemal (Cesa)



Fig. 30 - *Zygaena laeta* in copula on the flower of *Xeranthemum annuum (Asteraceae*). Turkey Erzurum Prov. İspir 1500m 9 8 2009 photo M Kemal (Cesa)



Fig. 31- Zygaena laeta (male) on the flower of Xeranthemum annuum (Asteraceae). Turkey Erzurum Prov., İspir 1500m 9 8 2009 photo M Kemal (Cesa)



Fig. 32- Zygaena minos during feeding on Allium sp. Turkey Erzurum Prov., Kırık S 2250m 11 8 2009 photo M Kemal (Cesa)

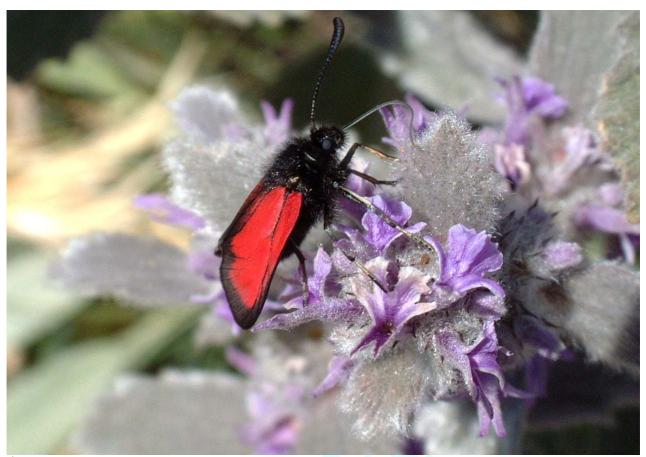


Fig. 33 - *Zygaena punctum* feeding on *Mentha* sp. (*Lamiaceae*). Turkey Karaman Prov., Sertavul Pass 1600m 25 6 2005 photo A Koçak (Cesa)



Fig. 34 - *Zygaena punctum* at rest. Turkey Kars Prov., Kağızman Akçay 1900m, 28 7 2009 photo M Kemal (Cesa)



Fig. 35- Zygaena punctum in copula. Turkey Bitlis Prov., Reşadiye 1680m, 28 6 2009 photo M Kemal (Cesa)



Fig. 36 - Zygaena purpuralis Turkey Ardahan Prov., Posof S 2000m 1 8 2009 photo M Kemal (Cesa)

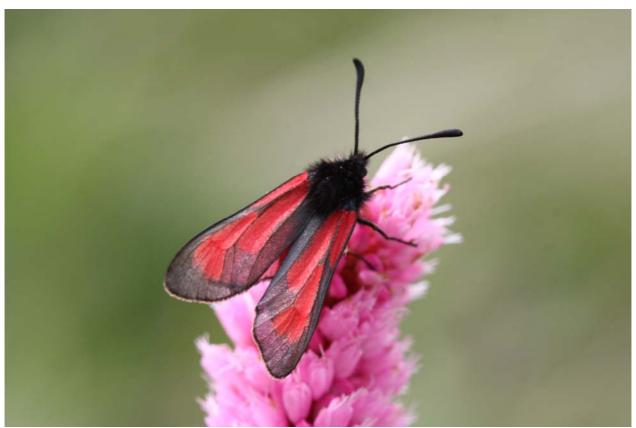


Fig. 37 - *Zygaena purpuralis* on *Polygonum bistorta* (*Polygonaceae*). Turkey Ardahan Prov., Posof Ulgar dağı 2500m 1 8 2009 photo M Kemal (Cesa)



Fig. 37 - Zygaena rubricollis Turkey Van Prov., Gevaş Altınsaç 1680m 2 7 2009 photo M Kemal (Cesa)



Fig. 39 - Zygaena rubricollis in copula. Turkey Van Prov., Gevaş Altınsaç 1680m 2 7 2009 photo M Kemal (Cesa)



Fig. 40 - Zygaena tamara. Turkey Van Prov., Zernek 2000m 31 7 2001 photo A Koçak (Cesa)



Fig. 41 - Zygaena dorycnii. Turkey Ardahan Prov., Posof Çambeli 1730m 2 8 2009 photo M Kemal (Cesa)



Fig. 42 - *Zygaena dorycnii* captured by a spider. Turkey Ardahan Posof 1370m 2 8 2009 photo M Kemal (Cesa)



Fig.43 - Zygaena dorycnii Turkey Erzurum Prov. İspir 1960m 9 8 2009 photo M Kemal (Cesa)



Fig.44 - Zygaena dorycnii Turkey Erzurum Prov., İspir Nahizer 1300m, 10 8 2009 photo M Kemal (Cesa)



Fig.45 - *Zygaena dorycnii* (female) Turkey Bitlis Prov. Tatvan Hanelmalı 1730m 9 7 2006 photo M Kemal (Cesa)



Fig.46 - Zygaena filifendulae during feeding on ?Cirsium sp. Turkey Bolu Prov., Abant 1450m, 14 8 2009 photo M Kemal (Cesa)



Fig.47 - Zygaena lonicerae Turkey Ardahan Prov. Posof Çambeli 1740m 2 8 2009 photo M Kemal (Cesa)



Fig.48 - Zygaena lonicerae Turkey Ardahan Prov., Hanak N 2050m 18 7 2009 photo M Kemal (Cesa)





Fig.49 - *Zygaena lonicerae*, a feeding group. Turkey Ardahan Prov., Posof Alköy 1400m 19 7 2009 photo M Kemal (Cesa)



Fig.50 - Zygaena lonicerae in copula. Turkey Ardahan Prov. Posof S 1450m 19 7 2009 photo M Kemal (Cesa)



Fig.51 - Zygaena lonicerae in copula. Turkey Ardahan Prov., Posof S 1450m 19 7 2009 photo M Kemal (Cesa)



Fig.52 - Zygaena aff. ephialtes / senescens Turkey Gümüşhane Prov., Kösedağı, 1500m, 27 6 2008 photo M Kemal (Cesa)



Fig. 53 - Zyqaena aff. ephialtes / senescens Turkey Gümüşhane Prov., Kösedağı, 1500m, 27 6 2008 photo M Kemal (Cesa)

Announcement **Recent Publications of the Cesa**

Miscellaneous Papers of the Cesa, Nr. 149 and Nr. 150 were published on 21 December 2009 and on 25 December 2009 respectively. Both issues may be freely obtainable as pdf files from the following URL addresses: http://www.archive.org/details/CentreForEntomologicalStudiesAnkaraMiscellaneousPapers149

 $\underline{http://www.archive.org/details/CentreforEntomologicalStudiesAnkaraMiscellaneousPapers150}$

The titles of the articles published in these issues are given below:

Koçak, A.Ö. & M.Kemal, 2009, On the nomenclature of a pre-occupied generic name in the family *Ichneumonidae* (*Hymenoptera*). *Cent. ent. Stud., Misc. Pap.* 150: 1.

Koçak, A.Ö. & M.Kemal, 2009, On the nomenclature of a pre-occupied generic name in the family *Braconidae* from Zaire (*Hymenoptera*). Nr. 150

Cent. ent. Stud., Misc. Pap. 150: 2.

Koçak, A.Ö. & M. Kemal, 2009, On the nomenclature of two pre-occupied generic names in the family Tephritidae in the Afrotropical Region (Diptera). Cent. ent. Stud., Misc. Pap. 150: 2-3.

Koçak, A.Ö. & M.Kemal, 2009, A generic replacement name in the family Gerridae (Hemiptera) from Afrotropical Region. Cent. ent. Stud., Misc. Pap. 150: 3-4.

Koçak, A.Ö. & M. Kemal, 2009, Eurasicesa nom.n., a replacement name in the family Limoniidae in Eurasia (Diptera). Cent. ent. Stud., Misc. Pap. 150: 4-5.

Koçak, A.Ö. & M. Kemal, 2009, Nomenclatural notes on some generic names of the superfamily Chalcidoidea (Hymenoptera). Cent. ent. Stud., Misc. Pap. 150: 5-6.
Koçak, A.Ö. & M. Kemal, 2009, A replacement name Danielottea nom.n., in the family Gryllidae in Tanzania (Orthoptera). Cent. ent. Stud.,

Misc. Pap. 150: 6-7. Koçak, A.Ö. & M.Kemal, 2009, Notes on the nomenclature of some generic name of the order Diptera. Cent. ent. Stud., Misc. Pap. 150: 7-8.

Nr. 149 Koçak, A.Ö. & M.Kemal, 2009, Gouxia nom. n., a replacement name of a genus group taxon in the order Hemiptera (Coccoidea, Pseudococcidae). Cent. ent. Stud., Misc. Pap. 149: 1.

Koçak, A.Ö. & M.Kemal, 2009, Nomenclatural notes on the genus group names in *Orthoptera. Cent. ent. Stud., Misc. Pap.* 149: 2-4. Koçak, A.Ö. & M.Kemal, 2009, A replacement name in the family *Pyrgotidae (Diptera). Cent. ent. Stud., Misc. Pap.* 149: 4-5.

Koçak, A.Ö. & M. Kemal, 2009, Description of new taxa in the family Tettigoniidae from South East Turkey (Orthoptera). Cent. ent. Stud.,

Misc. Pap. 149: 5-6, 2 figs. Kemal, M. & A.Ö. Koçak, 2009, A generic replacement name in the family Psyllidae (Homoptera). Cent. ent. Stud., Misc. Pap. 149: 7.

On the synonymy of newly proposed two replacement names in the family *Limoniidae* (*Diptera*)⁵

Ahmet Ömer Koçak

Abstract: On the synonymy of newly proposed two replacement names in the family *Limoniidae* (*Diptera*). *Cesa News* 54: 36.

In this short paper, *Novolunaria* Özdikmen, 2010 is proposed as junior objective synonym of *Eurasicesa* Kocak & Kemal, 2009 in the family *Limoniidae* (*Diptera*).

Key words: Diptera, Limoniidae, Lunaria, Eurasicesa, Novolunaria, nomenclature, homonymy.

In late December of the year 2009, Koçak & Kemal (2009) proposed a replacement name, *Eurasicesa* (nom.nov.) for a preoccupied subgenus name, *Lunaria* Savchenko (1982), as it cannot be treated validly for a taxon under the Homonymy Rules of the ICZN (1999). On the first day of 2010, Özdikmen (2010) published an other replacement name, *Novolunaria* (nom.nov.) for the same subgenus, *Lunaria* Savchenko for the same purpose. Under these circumstances, both replacement names are objective synonyms each other, as well as with the preoccupied name, *Lunaria* Savchenko. Between the two replacement names, *Eurasicesa is* the senior, and nomenclaturally available name; therefore, it must be used as valid name for the subgenus of the genus *Hoplobasis* Osten Sacken,1869, according to the Priority Rules (ICZN,1999).

This nomenclatural case may be summarized as follows;

Limoniidae

Hoplobasis Osten Sacken, 1869

Hoplobasis (Eurasicesa) Koçak & Kemal, 2009 [25 Dec.]

- =Lunaria Savchenko,1982 nec Fabricius,1823 non Jin, Sun & Ye 1979
- =Novolunaria Özdikmen,2010 [1 Jan.] (syn.nov.)

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Koçak, A.Ö. & M.Kemal, 2009 [25 December], *Eurasicesa* nom.n., a replacement name in the family *Limoniidae in Eurasia* (*Diptera*). *Cent. ent. Stud., Misc. Pap.* 150: 4-5.

Özdikmen, H., 2010 [1 January], Substitute names for three Palaearctic fly genus group names (*Diptera*, *Limoniidae* and *Dolichopodidae*). *Munis Ent. Zool.* 5 (1): 262-265.

Savchenko, E.N., 1982, Limoniid-flies (subfamily Eriopterinae). Fauna Ukrainy 14 (3): 1-335.

⁵ It is believed that this nomenclatural paper is published online, in accordance with the amendment articles of the ICZN (ICZN,2008).



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